motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Zhang and Ohtani or to combine reference teachings to achieve the claimed invention.

The Official Action concedes that Zhang does not teach a method of forming protective film 33. The Official Action asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of forming a thin oxide film (not shown) in Ohtani in order to form the protective film 33 of Zhang "since the method of Ohtani is a known method of forming an oxide that improves the surface characteristics of the underlying film" (page 21, Paper No. 20040913). For the reasons noted in detail below, the Applicant respectfully disagrees and traverses the above assertions.

Initially, it is noted that the Official Action appears to ignore the arguments presented by the Applicant in the previous *Amendment* at page 14, reproduced as follows:

> The fact that there is no method for forming the oxide layer 33 disclosed in Zhang does not mean that any known method could be used to form the oxide layer by one of ordinary skill in the art at the time the invention was made. The above-referenced assertions by the Examiner appear to lack any known legal precedent in the MPEP, CFR and court decisions. Therefore, the Applicant respectfully submits that the above assertions are baseless and should be reconsidered and withdrawn.

The Applicant respectfully submits that the Official Action has reversed the burden on the Examiner to prove a *prima facie* case of obviousness. The Official Action must provide a reason why one of ordinary skill in the art would use a particular method to form the protective film 33 in Zhang. The Official Action cannot simply assert that "any known method could be used to form the oxide layer 33 in the absence of a particular suggestion by Zhang et al." (page 21, Paper No. 22040913). Rather, the rules require that the Examiner find and identify some teaching, suggestion, or motivation to combine the references either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In the present case, the Examiner must show that there is a teaching, suggestion, or motivation to form the protective film 33 using the method of Ohtani, i.e. the Examiner must show why it is obvious to combine these two references and why the surface characteristics of Zhang are a problem that should (and could) be solved by the method in Ohtani.

As mentioned above, the Official Action asserts that "any known method could be used to form the oxide layer 33" (Id., emphasis added). It is noted that the test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

Also, in asserting that it would have been obvious to combine Zhang and Ohtani, the Official Action does not show how the problem allegedly solved by Ohtani has

anything to do with Zhang or how either reference has anything to do with the invention defined by the claims of the present application. Specifically, the Official Action relies on a method for the formation of a thin oxide film in Ohtani to cure the deficiencies in Zhang. However, the thin oxide film in Ohtani is provided so that "the amorphous silicon film no longer repels water" (column 2, line 43, or column 7, lines 17), or so that the "silicon film 103 no longer repels aqueous solution" (column 6, lines 59-60). Whereas, in Zhang, the protective film 33 is used in doping processes. Zhang does not appear to be concerned with whether water is repelled or with the surface characteristics of a silicon film. Ohtani does not discuss use of the method of forming a thin oxide film in place of or in addition to a protective film 33 used during a doping process to form a weak p-type polysilicon film 34. As such, it is unclear how or why it would have been obvious to combine the two references.

In the "Response to Arguments" section, the Official Action asserts "that the combination [of Zhang and Ohtani] would not be removing Zhang's method of providing a protective film of a silicon oxide. Rather, the examiner is [relying] upon Ohtani's method for showing how to form a silicon oxide protective film, the method having the added benefits of improving surface characteristics" (page 21-22, Paper No. 20040913). Whether the Official Action is relying on Ohtani to teach a method of forming a thin oxide film in lieu of the protective film 33 in Zhang, or whether the Official Action is relying on Ohtani to teach that the method of forming the thin oxide film in Ohtani should be used to form the protective film 33 in Zhang, the Official Action still has not provided a reason why such combination should take place, which is legally required to form a *prima facie* case of obviousness.

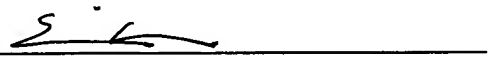
Although the Official Action has shown that protective film 33 exists in Zhang, and, independently and separately, that there is a method of forming a thin oxide film (not shown) in Ohtani, the Official Action has not shown why it would have been obvious to use the method in Ohtani of forming the thin oxide film as (or in lieu of) the method of forming the protective film 33 of Zhang.

In the present application, it is respectfully submitted that the prior art of record, alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789